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ABSTRACT

This document contains forms that colleges and universities must submit to the National Council for Accreditation of Teacher Education (NCATE) in order to have their teacher education programs in technology education accredited. The forms include standards in the three subsystems of technology education--production (construction and manufacturing), communication, and transportation--that must be met in order for a program to be accredited. For each guideline listed, the forms provide space for the college or university requesting accreditation to list courses, describe experiences, and refer to submitted documents. A checklist of materials that must be submitted is also included in this packet. (KC)

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NCATE APPROVED
Curriculum Guidelines

Basic Program in Technology Education

Prepared by
INTERNATIONAL TECHNOLOGY EDUCATION ASSOCIATION
AND ITS AFFILIATE COUNCIL
COUNCIL ON TECHNOLOGY TEACHER EDUCATION

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NCATE APPROVED
Curriculum Guidelines

Basic Program in Technology Education

These guidelines were approved by NCATE in April 1987. Beginning in September 1988, institutions have to respond to these guidelines for basic technology education teacher education programs.

Institutions seeking NCATE accreditation are required to respond to the curriculum sections of ITEA/CTTE's guidelines as adapted for this document. The full set of guidelines for the preparation of technology teacher preparation, Standards for Technology Education Programs (1985) can be purchased for $5 from the International Technology Education Association, 1914 Association Drive, Reston, VA 22091-1502; 703/860-2100.

Introduction

Technology education is an applied discipline designed to promote technological literacy at all levels. It is the intent of such study to provide students with an understanding of their technological culture so they can become intelligent consumers of their technology. Therefore, the program is designed to produce individuals who can solve problems involving the technical means humans use for their survival. Technology education capitalizes on the need humans have for expressing themselves with tools and materials. Technological literacy is considered a basic and fundamental study for all persons regardless of educational or career goals. As a result of these goals, the discipline is laboratory oriented. This area of study replaces programs formerly known as Industrial Arts.

Technology education is defined as a comprehensive, action-based educational program concerned with technical means, their evolution, utilization, and significance; with industry, its organization, personnel systems, techniques, resources, and products; and their social/cultural impact. (Technology Education: A Perspective on Implementation, 1985, p. 25).

In technology education, the subsystems of human technical endeavor serve as the foundation for content derivation, as well as the development of instructional strategies. These subsystems are: (1) production (construction and manufacturing), (2) communication, and (3) transportation. Each subsystem provides structure to the school program, as does the inter-relationship among them. It is imperative therefore, that programs be evaluated on their ability to provide instruction in these areas.

Instructions for Completing the Folio

The curriculum folio generated by the institution should provide information to demonstrate the ability to deliver a curricular structure based on the subsystems identified above. Support materials must include the items listed on the cover sheet that follows this page. State certification requirements for technology education should be provided.

Information provided should substantiate and describe the degree to which your program meets each guideline. The length of each response is dependent upon the breadth and depth the institution feels necessary to communicate with NCATE. If the space provided is inadequate, supplementary pages may be added. It is imperative that all materials be referenced to the matrix number that it documents.

COVER SHEET

International Technology Education Association
Council on Technology Teacher Education

Submitted By

NAME OF UNIVERSITY

ADDRESS

DATE

CHIEF COMPILER

Checklist of Materials
to Be Enclosed with this Folio

____ Overview and scope, including the following:

____ 1. Objectives of the program.
____ 2. List of tenure-track faculty with primary assignment in the technology education program. Please give rank and responsibilities.
____ 3. Number of graduates from the program(s) at different levels over the past three years.
____ 4. Description of where the program is located within the professional education unit and its interrelationships with other programs in the unit and the university/college.
____ 5. Students' courses of studies, including exact courses and sequence taken by semester.
____ 6. List or indication of all required courses in the specialty area.
____ 7. Descriptions of field experiences, student teaching, and internships.
____ 8. State certification requirements for technology education programs.
____ 9. Explanation of how the program may deviate from the guidelines.
____10. Description of courses offered for non-majors (i.e., photography for journalism).
____11. Percent of student semester hours taught for the non-major courses in #10.

____ Matrix/Matrices
____ Course Descriptions and Syllabi as Appropriate

Guidelines and Matrix

International Technology Education Association
Council on Technology Teacher Education

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
1 The technology education program provides a curriculum that is consistent with current research findings for curricular design.	
1.1 The technology education program is based on a sound mission statement with stated goals and objectives which reflect the intent of technology education.	
1.2 The program is based on an organized set of concepts, processes and systems that are uniquely technological.	
1.3 The study of technology is reflected in curricular design, course outlines, instructional strategies, and evaluation of student work.	
2 Courses in math, science, and related areas in the general education component provide the necessary depth and breadth for technology education.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
3 The technology education program requires appropriate academic studies in the area in which the graduate will teach.	
3.1 The program is based on fundamental knowledge about the development of technology, its effect on people, the environment and culture; and industry, its organization, personnel systems, techniques, resources and products, and their socio-cultural impact.	
3.2 Instructional content is drawn from the following content organizers:	
3.2.1 Communication: efficiently using resources to transfer information to extend human potential.	
3.2.2 Construction: efficiently using resources to build structures or constructed work on site.	
3.2.3 Manufacturing: efficiently using resources to extract and convert raw/recycled materials into industrial and consumer goods.	
3.2.4 Transportation: efficiently using resources to obtain time and to attain and maintain direct physical contact and exchange among individuals and societal units through the movement of material/goods and people.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
3.3 The level and scope of skills in the use of tools, instruments, and machines to be acquired have been identified and incorporated into the program.	
3.4 The program assists students in developing insight, understanding, and application of technological concepts, processes and systems.	
3.5 The program assists students to apply tools, materials, machines, processes, and technical concepts, safely and efficiently.	
3.6 The program helps students develop skills, creative abilities, positive self-concepts, and individual potentials in technology.	
3.7 The program develops student problem-solving and decision-making abilities involving human and material resources, processes, and technological systems.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
3.8 The program provides activity-oriented laboratory instruction with students reinforcing abstract concepts with concrete experiences.	
3.9 The program emphasizes "know-how" and "ability to do" in carrying out technological work.	
3.10 The program develops students attitudes, knowledge, and skills regarding how technological systems function.	
3.11 The program develops students in the ability to apply technological attitudes, knowledge and skills to understanding new or different past-present-future technology systems.	
3.12 The program develops in students an understanding of the application of other areas of knowledge (i.e., mathematics, science, history) to technology and the solution of human and social problems, including appropriate skill in use of tools and machines.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
4 Courses/experiences are provided so that the graduate can perform the following tasks in developing, managing, and evaluating a technology program in schools:	
4.1 Develop a strategic plan that includes a mission statement, rationale for change, goals and objectives, action steps, as well as a program evaluation strategy.	
4.2 Select content based on the goals and objectives within the four content organizers (construction, manufacturing, communication, and transportation).	
4.3 Structure an educational environment in the classroom and laboratory to accommodate the instructional process.	
4.4 Select appropriate instructional stratgegies for individual and group instruction, including safety instruction.	
4.5 Provide laboratory management (i.e., safety, inventory, filing, requisitioning equipment and materials, maintenance, budgeting).	
4.6 Develop lesson plans, organize materials and present psychomotor, affective, and cognitive instruction.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
4.7 Establish student expectations and develop/implement a behavior policy.	
4.8 Establish a student association within the technology education program, including choice of type of organization, establishing a chapter, assisting in management and evaluation.	
4.10 Promote and articulate technology education to internal and external policies.	
4.11 Develop and coordinate an external advisory committee for the program.	
4.12 Establish a professional development plan for continued personal and professional growth.	
4.13 Identify standards for the program, establish a process for using the standards, and utilize findings in subsequent revisions.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
5 The professional studies component is designed to provide students with the attitudes, knowledge and skills necessary for success as a teacher in technology education.	
5.1 The professional studies component provides specialized instruction in classroom and laboratory experiences for the study of technology.	
5.2 Instruction is provided to assist teachers in managing technological activities on both an individual and group basis.	
5.3 Students are introduced to multicultural and global perspectives as they relate to the study of technology.	
5.4 Students are introduced to values and ethics as they relate to content issues in the study of technology.	

GUIDELINES	Evidence that the guideline is met (list courses, describe experiences, and/or refer to submitted documents)
6 The curriculum includes a full-time student teaching experience conducted in a technology education program under the supervision of program faculty and a master teacher in the school setting.	
6.1 The prospective teacher participates in a wide range of professional experiences which typically accompany technology education.	
6.2 The prospective teacher assumes responsibility for preparation, teaching, and managing classes in technology education.	